

STATEMENT OF WORK (SOW)

**National Nuclear Security Administration (NNSA) Office of Nuclear Smuggling Detection and
Deterrence (NSDD)**

Counter Nuclear Smuggling System Deployment

The National Nuclear Security Administration, Albuquerque Complex

March 2023

1. OBJECTIVE

The objective of this procurement is to deploy integrated sustainable counter nuclear smuggling systems in cooperation with international partners around the world in order to strengthen the overall capability of partner countries to detect, disrupt, and investigate smuggling of nuclear and radiological materials that could be used in acts of terrorism. Locations may include, but are not limited to, points of entry of all types, border control areas, or other areas throughout partner countries where partner organizations have authority.

2. SCOPE OF WORK

The scope includes tasks associated with design, integration, construction, communications, logistics, training, and equipment procurement to support the deployment of counter nuclear smuggling systems. Examples of counter nuclear smuggling system components include but are not limited to: radiation detection systems, security systems, passive barriers, non-structural modifications of existing buildings, new supporting infrastructure, communications equipment and systems, vehicles, and other items and systems that enable, and are complimentary to, the radiation detection mission.

Work carried out under this SOW will be integrated into a larger effort that involves the contributions of national laboratories and other contractors with specialized capabilities. The work sought by the NSDD Program Office shall be specified on an individual task order basis and issued by the Contracting Officer. A task order for support may incorporate multiple locations within a particular country, region, or other logical grouping. Additionally, Program-wide Task Orders will be issued to cover requirements that are not directly allocatable to a single country.

3. BACKGROUND

The NSDD Program is one of three within the Office of Global Material Security and plays a key role in NNSA's nonproliferation mission. NSDD strengthens the overall capability of partner countries to detect, disrupt, and investigate smuggling of nuclear and radiological materials at points of entry of all types, border control areas, or other areas throughout partner countries where partner organizations have authority.

The NSDD Program coordinates with host governments to deploy counter nuclear smuggling systems for operation by those partner agencies. The NSDD Program, formerly known as the Second Line of Defense, started with work with Russia in 1998 and has since expanded to cooperation with more than 80 countries. Rapid deployment and effective operation of these counter nuclear smuggling systems in partnership with foreign countries is a key priority of NNSA.

The NSDD Program Office is broadly organized into two functional areas: Implementation and Sustainability. Implementation focuses on the design, integration, construction, and deployment of counter nuclear smuggling systems. Sustainability focuses on policies and procedures, operations, training, maintenance, assessments, and transition of responsibility for these activities from NSDD to the partner country agencies. Implementation contractors will primarily perform work under the Implementation Program but may be tasked to perform work for the Sustainability Program.

4. TECHNICAL REQUIREMENTS

The Contractor shall perform the following activities:

4.1. Design Engineering

The Contractor shall provide design engineering for counter nuclear smuggling systems that promotes design efficiencies, including the use of host country design services and the application of lessons learned. NSDD will provide existing or previous standard designs when available. When these are not available, the Contractor shall develop designs that are appropriate to the specified function identified in the Task Order.

4.1.1. Standard Designs

The Contractor shall standardize the installation and deployment designs to the maximum extent possible. The Contractor shall maintain a set of standard designs for the deployment of counter nuclear smuggling systems. The Contractor shall ensure that standard system designs satisfy equipment deployment and operating requirements for Government Furnished Property (GFP) and contractor acquired property. The Contractor shall ensure that designs adhere to all NSDD guidance and procedure documents, including design specifications and acceptance testing documents and procedures.

4.1.2. Design Management and Oversight

The Contractor shall provide design management and oversight. If necessary, the Task Order may require use of domestic or host country design firms. The Contractor shall provide engineering and consulting services to NSDD and their contractors as required. The Contractor shall review, comment on, refine and/or modify designs provided by third parties.

4.1.3. Design Reviews, Surveys, and Assessments

The Contractor shall participate in site surveys, engineering surveys, assessment of deployment locations, conceptual design reviews, equipment discussions, design assumptions reviews, preliminary design reviews, critical design reviews, construction readiness reviews, communication reviews and other engineering meetings. The contractor shall be responsible for all other surveys and reports necessary to meet local standards to include wind loading, geographical surveys, soil, radio frequency analysis, structural integrity assessments, line of site mapping, and any other necessary studies.

4.2. Construction Management

The Contractor shall, using host country firms to the maximum extent possible, deploy counter nuclear smuggling systems. Deployments may include installation or construction in new or modified form of any of the following: facilities, non-structural modification of existing buildings, supporting infrastructure, passive barriers, radiation detection systems, security systems, communication systems, and landscaping. Demolitions and utility system upgrades such as water (potable and fire) and communications may also be required of the Contractor. The Contracting Officer's Representative (COR) shall be notified in writing whenever hazardous material, extraneous hazardous work conditions, or significant security risks are encountered that require additional precautionary actions to be taken.

4.2.1. Deployment and Construction Quality, Health, Safety, and Security

The Contractor shall ensure that quality assurance, environmental, safety, health, security, and design requirements are met by in-country subcontractors. The Contractor shall adhere to the appropriate standards of the US and the host country for all activities. The Contractor shall ensure all permits and local inspections are obtained as required. The contractor shall coordinate with all host country stakeholder agencies whose authorities might impact project

completion and success. The Contractor shall report all Quality, Health, Safety, of Security incidents or near-incidents to the COR.

4.2.2. Domestic Construction for Test, Maintenance and Repair Facilities, and Training Centers

The Contractor shall perform limited domestic construction upgrades to existing or new NSDD test, maintenance, repair or training facilities in the continental United States (CONUS).

4.3. Communications Systems

4.3.1. Communications System Evaluation and Investigation

The Contractor shall evaluate existing communications systems and conduct the necessary analysis to assist with deployment or expansion of communications systems that are part of counter nuclear smuggling systems. This includes the evaluation of data retention center capabilities, communications system trouble shooting, radio frequency analysis, line of site analysis, and coverage mapping to identify areas with weak signal or dead zones. Types of communications systems include but are not limited to radiation detection systems, microwave, handheld optics, web-based networks, fiber optics, data centers, workstations, GSM, VHF radio, HF radio, satellite communications, and any newly developed or deployed communication technology.

4.3.2. Central Alarm System Software for Counter Nuclear Smuggling Systems

When deemed necessary by NSDD, the Contractor shall provide Central Alarms System (CAS) software from a vendor using a software solution that is designed for counter nuclear smuggling system operations and is proven in NSDD installations. The software shall comply with NSDD program requirements documents. The contractor shall deploy this CAS software system with or without customization for all deployments as directed by the Task Order SOW.

4.3.3. CAS Software Change, Version Control, and Configuration Management

The contractor shall ensure configuration management of the installed systems to maximize standardization and to ensure that only NSDD approved changes to the software are implemented and that those changes are documented. The contractor shall deliver a fully configured CAS application and documentation including, but not limited to, training, support, lessons learned, troubleshooting guide, FAQs, and user and system administration manuals for baselining in the NSDD configuration management system. The CAS software shall be configurable within the defined parameters and meet all NSDD program documented requirements, except for specific external system interfaces. Contractor shall track software defects and provide NSDD with a proposed solution to address these defects. The contractor shall assess hardware, software, network, system management, along with desktop, remote, or virtual devices, and shall provide a minimally acceptable system configuration to meet TO requirements.

4.4. Specialized Engineering Services

The Contractor shall perform specialized engineering services required in support of NSDD mission requirements. Such services may include:

- a. Assessments, feasibility studies, and market surveys of a range of detection, mission-enabling, and communication equipment.
- b. Studies to improve communication system designs and minimize cost and schedule for deployment.

- c. Reliability, performance, and life cycle assessments of NSDD equipment; and
- d. Test and evaluation support of new or existing equipment designs.

4.5. Integration of Counter Nuclear Smuggling Systems

4.5.1. System Integration

The Contractor shall provide the necessary services to ensure that the equipment and systems that make up a counter nuclear smuggling system are integrated to provide effective operating capabilities for partner organizations. This could include identifying or developing solutions to integrate alarm data into a single command and control software, ensuring compatibility between multiple communications technologies, or simplifying how data is stored, utilized, or transferred between independent systems.

4.5.2. Consistency in Counter Nuclear Smuggling Systems

The Contractor shall seek to ensure consistency and integration between counter nuclear smuggling systems deployed to partners in a given country. In particular, the Contractor shall seek to ensure that any counter nuclear smuggling system deployed is compatible and consistent with any other previously deployed by NSDD.

4.6. Program Management

The Contractor shall serve as the central coordinator and integrator for system deployment activities and provide other services to the NSDD Program as requested. The Contractor shall provide technical support for planning activities of NSDD Program Office officials along with technical support to host country government officials and contractors as required.

4.6.1. Program Management Plan

The Contractor shall prepare, for approval by the NSDD Program Office, a Program Management Plan (PMP) to define its approach for managing work under this contract. The Contractor also shall develop procedures for implementation of the PMP. The specific requirements for the PMP shall be defined in a Program-wide task order, but shall include at least the following subject matter:

- a. Program organization of work/tasks via a work breakdown structure with a WBS dictionary
- b. Staffing and resource requirements
- c. Organizational roles and responsibilities
- d. Management of U.S. subcontractors
- e. Management of foreign subcontractors
- f. Quality assurance
- g. Material and property management
- h. Project controls and reporting for budget, accounting, and schedule
- i. Export control licensing
- j. Website structure and functionality
- k. Management and reporting of cash flow/financing requirements
- l. Invoicing
- m. Risk management
- n. Training
- o. Maintenance
- p. Security
- q. Environmental, health, and safety
- r. Hazard, hardship, and incentive fees
- s. Logistics Management

4.6.2. Configuration Management

The Contractor shall provide configuration management procedures for all design and deployment activities. The Contractor's configuration management procedures must complement and support NSDD Program configuration management procedures.

4.6.3. Program Integration

The Contractor shall coordinate simultaneous design, construction, integration, logistics, and training activities within multiple countries, and commonly at multiple locations within each country. To address all project operations the contractor shall designate a single point of contact (Task Order Manager) for each country or delivery order. NSDD may direct the Contractor to coordinate and collaborate with other NSDD contractors and National Laboratories, as needed, to satisfy specific design requirements and program objectives.

4.7. Logistics

4.7.1. Import/Export Control Licenses

The Contractor shall complete the necessary export control tasks for all relevant equipment in fulfillment of this SOW. The Contractor shall provide ECCNs and documentation required by applicable regulations for all equipment purchased, regardless of the point of origin or final destination, and shall provide this information upon delivery.

4.7.2. Shipping, Packaging, and Storage in Foreign Country

The Contractor shall ship equipment and material to NSDD partner countries. Once in country, the Contractor is responsible for the safe storage, transportation, maintenance and security of all GFP and Contractor purchased items until the entire system is accepted by the U.S. Government.

4.7.3. Management of Government Furnished Property

GFP will be specified in the individual Task Order SOW. The NSDD inventory of GFP is managed by a separate contractor. In accordance with paragraph 4.6.2, the Contractor shall coordinate with the NSDD Equipment Management Services contractor to ship any equipment specified as GFP.

4.7.4. Equipment Procurement

The Contractor may be required to procure equipment to support the deployment of counter nuclear smuggling systems. NSDD will provide the minimum requirements for any Contractor purchased equipment. The Contractor may be requested to provide and/or maintain minimal quantities of spare parts for counter nuclear smuggling and ancillary systems. Specific parts and quantities will be specified in the individual Task Order SOW.

4.7.5. Translation and Interpreter Services

The Contractor shall provide translators and/or interpreters to translate deliverables, letters and faxes, reports, meeting and training materials, and other items required for the NSDD Program. The Contractor shall provide interpreter support for meetings, training events, and other activities with host country representatives. The Contractor shall provide simultaneous interpretation when necessary.

4.7.6. Host-Country Logistics

The Contractor shall assist NSDD in preparing briefing materials for presentation at meetings in the host country. The Contractor shall procure host country transportation services, host country meeting facilities, supplies, and other services necessary to support

host country team meetings, assessments, site visits, acceptance testing, workshops and exercises, and other activities.

4.7.7. Host Country International Travel Support

The Contractor shall assist NSDD in providing logistics to support partners from host countries with travelling internationally to participate in NSDD-related events, meetings, exercises, trainings, or exchanges. Support provided shall include transportation, per diem, visa support, and any other necessary logistics activities required.

4.7.8. Maintenance and Lifecycle Services

The Contractor shall provide maintenance and lifecycle services on a case-by-case basis, as requested by NSDD. Tasks associated may include inspections, preventative maintenance, corrective maintenance, replacement, and refurbishment of NSDD equipment and systems as defined in the individual Task Order SOW. Maintenance shall be provided by local technicians to the maximum extent possible. All maintenance shall be performed by trained technicians in accordance with manufacturer maintenance manuals and procedures. Warranty provisions of Contractor-supplied equipment shall be enforced by the Contractor. Additionally, the Contractor shall coordinate with NSDD as defined in the individual Task Order SOW.

4.8. Inspection, Testing and Turnover

The Contractor shall provide technical and logistical support for inspection, testing, and assessment of deployed systems and the capability of operators prior to the transfer of operational responsibility to a partner country. The Contractor shall adhere to NSDD program guidance and requirements identified in the individual Task Order SOW for tasks related to inspection, testing, and turnover of counter nuclear smuggling systems.

4.9. Training

The Contractor shall provide training to host country personnel on a case-by case basis, as requested by NSDD. In such cases, the Contractor's responsibilities may include curriculum development, training delivery, contracting for training, and oversight of a training conducted by another contractor. The Contractor shall also facilitate training provided by vendors or other organizations related to the operation of equipment of systems deployed. This may include delivery of technical best practice courses or exchanges from specialists who are familiar with the deployed systems.

5. DELIVERABLES

The Contractor shall deliver reports as specified in the Reporting Requirements Checklist.